

Title (en)

Transition metal clad interconnect for integrated circuits.

Title (de)

Übergangsmetallverbindungen für integrierte Schaltungen.

Title (fr)

Interconnexion en métal de transition pour circuits intégrés.

Publication

EP 0273629 A2 19880706 (EN)

Application

EP 87310975 A 19871214

Priority

US 94701386 A 19861229

Abstract (en)

An integrated circuit includes a patterned aluminum based interconnect clad on the top (15) and side portions (18,20) with a layer of transition metal (16,22). The cladding of transition metal prevents the formation of both vertical hillocks and lateral protrusions. Preventing these formations increases the reliability of an interconnect by significantly reducing passivation cracking and electrical shorting between interconnects which result from vertical hillock and lateral protrusion formations.

IPC 1-7

H01L 23/52

IPC 8 full level

H01L 23/52 (2006.01); **H01L 21/3205** (2006.01); **H01L 21/768** (2006.01); **H01L 23/532** (2006.01)

CPC (source: EP US)

H01L 21/76886 (2013.01 - EP US); **H01L 23/53223** (2013.01 - EP US); **H01L 2924/0002** (2013.01 - EP US)

Cited by

US5112439A; US5037775A; US5972786A; EP0502647A3; EP0851481A3; US5814560A; US5449640A; US6534869B2; EP0681328A3; DE102004036140A1; DE4038177A1; DE102004036142A1; DE102004036142B4; WO9720346A1; WO0173841A3

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